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**Final  
Archaeological Inventory Survey for the  
Airport Section (Section 3) of the  
Honolulu High-Capacity Transit Corridor Project,  
Hālawā and Moanalua Ahupua‘a, ‘Ewa and Honolulu Districts,  
Island of O‘ahu  
TMK Sections (1) 1-1 and (1) 9-9 (Various Plats and Parcels)  
Volume 2 of 2: Appendices**

**Prepared for  
The City and County of Honolulu  
and  
The Federal Transit Administration**

**On Behalf of  
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# Introduction

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## 1.1 Project Background

Cultural Surveys Hawai‘i, Inc. (CSH) completed this archaeological inventory survey (AIS) for Construction Section 3 (Airport) of the Honolulu High-Capacity Transit Corridor Project (HHCTCP) for the Honolulu Authority for Rapid Transit (HART) of the City & County of Honolulu (City), for the Federal Transit Administration (FTA), and on behalf of PB Americas, Inc. (PB). The AIS Airport study area is from Kalaloa Drive (100 m northwest of Hālawā Stream) in the west to Middle Street (directly west of Kalihi Stream) in the east, located within the traditional Hawaiian land divisions of Hālawā (‘Ewa District) and Moanalua Ahupua‘a (Honolulu District), Island of O‘ahu, TMK: [1] 1-1 and 9-9 (Various Plats and Parcels) (Figure 1).

The entire proposed HHCTCP extends approximately 37 km (23 miles) from Kapolei in the west to Ala Moana Center in the east. This report is for the AIS Airport Section 3 construction portion that extends from Station 994+00 Kamehameha Highway at Kalaloa Drive to Station 1248+00 Kamehameha Highway at Middle Street, for a distance of 7.74 km (25,400 feet or 4.8 miles). This Airport Section 3 portion includes the following four transit facilities: (1) Pearl Harbor Naval Base Station, (2) Honolulu International Airport Station, (3) Lagoon Drive Station, and (4) a “System Site” transit facility 250 m east of the Lagoon Drive Station.

This Phase 3 AIS begins on the west at the southeast end of the Phase 2 AIS study area on Kamehameha Highway at Kalaloa Drive. It continues south on Kamehameha Highway. Directly south of Radford Drive, the Pearl Harbor Naval Base Station platform will extend over the highway with an associated section of the station at ground level on the southeast corner of Radford Drive and Kamehameha Highway. From this station, the route continues south on the highway, passes through the Center Drive intersection, and continues south following the alignment of the H-1 Freeway Viaduct before crossing to the *makai* (seaward) side of Nimitz Highway by Valkenburgh Street. The route continues southeast past Main and Elliott Streets. At Aolele Street the route turns south (*makai*), continuing along the east side of the *mauka/makai* (inland/seaward) trending Aolele Street, curving east at Ala Onaona Street, to the Honolulu International Airport Station. The two alternate Honolulu International Airport Station locations are located in a presently at-grade parking area just northwest of the main Honolulu Airport overseas parking structure. From that station, the route continues east following the alignment of Ala Onaona Street, crossing Pai‘ea Street. Past Aowena Place, the route angles *mauka* to cross from Aolele Street to Ualena Street. The route then follows Ualena Street, crossing Lagoon Drive. The Lagoon Drive Station is immediately east of Lagoon Drive on the south portion of Waiwai Loop; *mauka* and *makai* entrance buildings are on either side of this portion of Waiwai Loop. From that station, the route continues east on the south side of the south portion of Waiwai Loop, crossing over an area of warehouses to Ke‘ehi Lagoon Beach Park. The route angles northeast through Ke‘ehi Lagoon Beach Park, *makai* of the tennis courts, and crosses Moanalua Stream *makai* and parallel to Nimitz Highway. In the short stretch between Moanalua Stream and Kalihi Stream, the route crosses *mauka* of Nimitz Highway, joining Kamehameha Highway at the Middle Street intersection where it meets the Section 4 AIS study area.

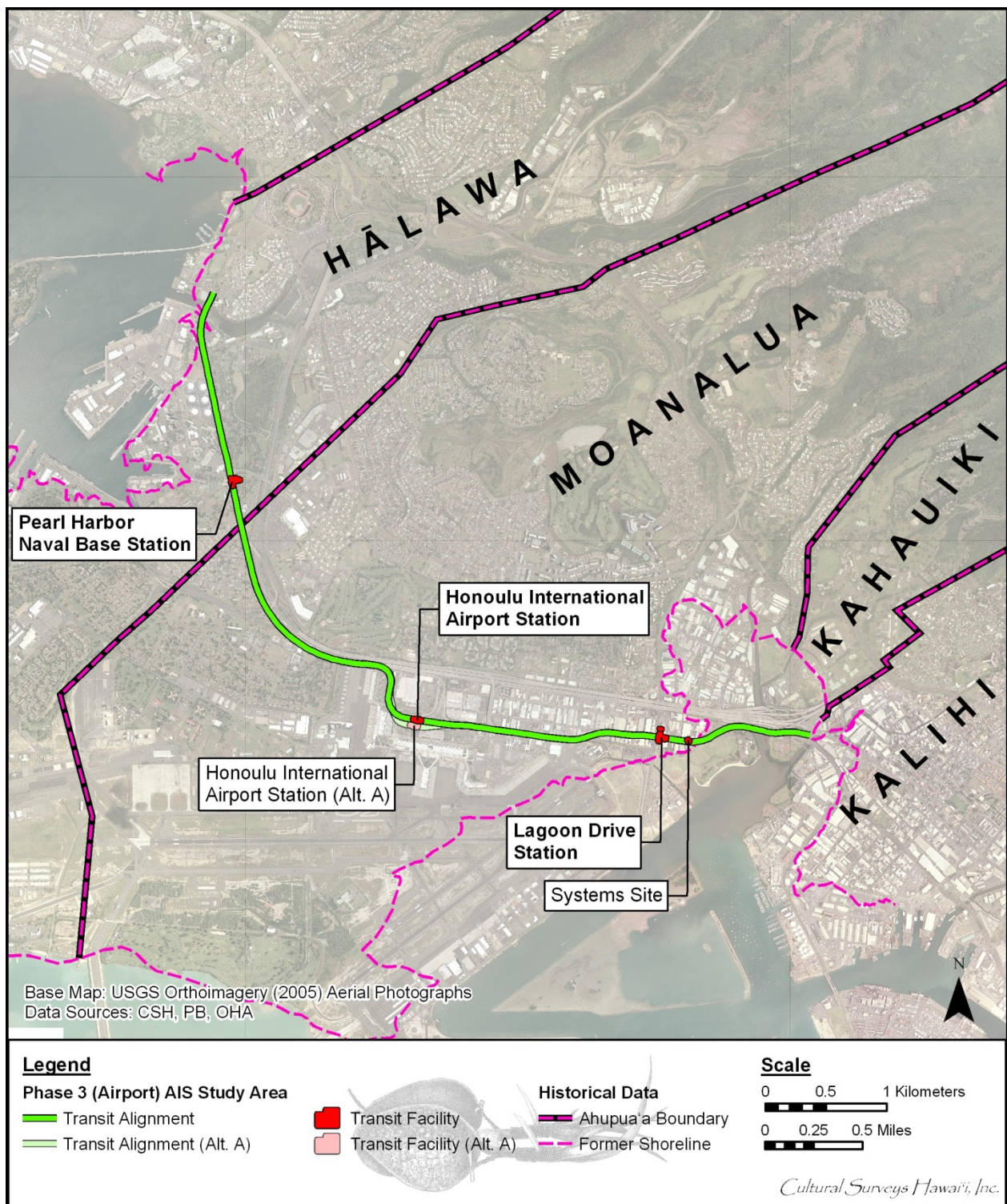


Figure 1. U.S. Geological Survey Orthophoto showing the Airport Section in relation to the *ahupua'a*

The Airport Section 3 AIS study area comprises most of the west end which is addressed in the Phase 2 AIS report and the southeastern end which is addressed in the Phase 4 AIS report. This Phase 3 AIS study is depicted on a U.S. Geological Survey 7.5-Minute Series Topographic Map, Honolulu (1998) Quadrangle (see Volume 1, Section 1). This study area primarily occurs within existing road rights-of-way owned by the State of Hawai'i or the City & County of Honolulu, including Kamehameha Highway, North Nimitz Highway, Aolele Street, and Ualena Street to the vicinity of Lagoon Drive, then back to Nimitz Highway, then turning to Kamehameha Highway directly west of Kalihi Stream. Support facilities along the project corridor are located on adjacent privately owned lands.

The HHCTCP's purpose is to provide much needed rapid transit transportation in the highly congested east-west transportation corridor between Kapolei and the Ala Moana Center via a fixed guideway rail transit system. In addition to the guideway, the transit system will involve construction of transit stations and ancillary support facilities. The four transit facilities planned for Airport Section 3 are the following: (1) Pearl Harbor Naval Base Station, (2) Honolulu International Airport Station, (3) Lagoon Drive Station, and (4) a "System Site" transit facility 250 m east of the Lagoon Drive Station (Figure 1). The project also requires relocation of existing utility lines within the project corridor that conflict with the proposed project design. Minimally, land-disturbing activities will include grading of facility locations and excavations for guideway column foundations, subsurface utility relocation and installation, and station and ancillary facility foundation construction.

The HHCTCP's area of potential effect (APE) for potential archaeological historic properties is defined in the Final HHCTCP Programmatic Agreement (Stipulation II.A.1.) as all areas of direct ground disturbance. The Airport Section 3 project area and APE consists of about 604,289 square feet or 13.87 acres.

## 1.2 Introduction to Appendices

This volume contains six appendices (A–F), each of which contains data that augments the detailed discussions provided in Volume 1. These appendices are briefly summarized below.

### **Appendix A: Inoa 'Āina (Place Names), Wahi Pana (Storied Places) and Traditional Cultural Places**

This appendix presents traditional, archival, historical, and ethnographic data generated by four recent studies, several of which were conducted in conjunction with or in support of the HHCTCP. This appendix augments the Mythological and Traditional Accounts (Section 2) and the Historic Background (Section 3) discussions in Volume 1.

### **Appendix B: Land Commission Awards in the Vicinity of Airport Section 3 Project Area**

This appendix presents transcriptions and/or photocopies of original award information for seven Land Claim Awards identified in the immediately vicinity of the Airport Section 3 corridor. These transcriptions contain information obtained from the following sources: Land Commission Awards (LCAs), Foreign Testimony, Native Testimony, and a review of historical documents and maps. This information appeared earlier in Appendix A of the Archaeological Inventory Survey Plan prepared for this project (Hammatt and Shideler 2011).

### **Appendix C: Archaeological Inventory Survey Research Design**

This appendix provides the research design developed for this project and previously presented in Sections 7 and 9 of the Archaeological Inventory Survey Plan (Hammatt and Shideler 2011). The research design has been updated to address all changes in test excavation locations that have occurred since the AISP was reviewed and approved by SHPD.

### **Appendix D: Consultation Letters and Consultation Responses**

This appendix provides consultation letters and responses pertaining to the initiation, development, submittal, review, and acceptance of the Airport Section 3 AISP (Hammatt and Shideler 2011) and the Addendum Airport Section 3 AISP (Hammatt and Shideler 2013).

### **Appendix E: Ground-Penetrating Radar Survey for Airport Section 3, Test Excavation Locations T-001 through T-047**

This appendix provides a detailed discussion of the ground-penetrating radar (GPR) survey conducted for Airport Section 3. This survey involved GPR data collection for each of the 47 test excavation locations (T-001 through T-047) examined during the archaeological inventory survey of this portion of the transit corridor. This GPR study tested the efficacy of GPR technology for identifying human burial remains and other types of subsurface archaeological features. The conducting of this GPR efficacy study was identified as a major component of the current AIS in Section 7.4 of the AISP (Hammatt and Shideler 2011). Pertinent GPR data appears in the text for each of the test excavation locations (T-001 through T-047) in Section 7 in Volume 1, while Appendix E presents an overview of the GPR study and summarizes the findings.

### **Appendix F. Pollen Analysis Report**

This appendix consists of a pollen analysis report prepared by Linda Scott Cummings with assistance from R. A. Varney, PaleoResearch Institute, Golden, Colorado. This pollen analysis included samples collected as part of the current Airport Section 3 study. Also included are samples from other portions of the transit corridor, e.g., City Center Section 4. Pertinent pollen data obtained for individual test excavation locations appears in Section 7 in Volume 1, while Appendix F presents an overview of the pollen study objectives, methods, and findings.

# **Appendix A   *Inoa* ‘*Āina* (Place Names), *Wahi Pana* (Storied Places), and Traditional Cultural Places**

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This appendix presents traditional, archival, historical, and ethnographic data generated by four recent studies, several of which were conducted in conjunction with or in support of the HHCTCP. This appendix augments the Mythological and Traditional Accounts (Section 2) and the Historic Background (Section 3) discussions in Volume 1. Integration into the Airport Section 3 AIS report of relevant information from these other studies was specified in the AISP (Hammatt and Shideler 2011:15, 117).

The studies presented within this appendix are identified as follows:

- (1) *He Mo‘olelo ‘Āina – Traditions and Storied Places in the Districts of ‘Ewa and Moanalua (in the District of Kona), Island of O‘ahu: A Traditional Cultural Properties Study – Technical Report* (Maly and Maly 2012);
- (2) *Study to Identify the Presence of Previously Unidentified Traditional Cultural Properties in Sections 1–3 for the Honolulu Rail Transit Project Management Summary* (The SRI Foundation and Kumu Pono Associates LLC 2012);
- (3) *A Study of Native Hawaiian Traditional Cultural Places Hickam Air Force Base, Hālawā and Moanalua Ahupua‘a, ‘Ewa and Kona Districts, O‘ahu, Hawai‘i* (Allen 2005); and
- (4) *Cultural Resources Technical Report Honolulu High-Capacity Transit Corridor Project* (Ka‘imipono Consulting Services 2008).

The following discussion is organized by study, briefly summarizes the study objectives, and discusses the salient topics and/or findings germane to the Airport Section 3 study area. It should be noted that two of the studies have not yet been finalized (studies 1 and 2).

## **Studies 1 and 2: Maly and Maly (2012) and SRI Foundation and Kumu Pono Associates LLC (2012)**

Maly and Maly (2012) produced a detailed compendium of Hawaiian traditions, historic accounts, land tenure and survey data, Boundary Commission surveys and proceedings obtained from Hawaiian- and English-language sources, and oral history interviews, including two conducted with *kūpuna* and *kama‘āina* who passed away before the present project began. The SRI Foundation and Kumu Pono Associates LLC (2012) present preliminary findings on Traditional Cultural Places (TCPs) that draws extensively from Maly and Maly (2012).

Their findings are presented as follows:

- 1.1 Inoa ‘Āina (Place Names)
  - 1.1.1 Place Names in Hālawā Ahupua‘a
  - 1.1.2 Place Names in Moanalua Ahupua‘a
- 1.2 Wahi Pana (Storied Places)

## ***Inoa 'Āina (Place Names)***

Place names (*Inoa 'Āina*) offer insights into traditional patterns of land use. As a sweeping, crude, generalization (there are certainly exceptions) there is a relationship between the frequency of place names and the intensity of land use and the richness of the cultural landscape. More intensively utilized landscapes typically have more place names than less utilized landscapes. A summary of the place names reported for Hālawā Ahupua'a (Table 1) and Moanalua Ahupua'a (Table 2) by Maly and Maly (2012:5-45) and The SRI Foundation and Kumu Pono Associates LLC (2012:B-1-B-28) studies is given below. This listing only includes place names “for which traditions were recorded, or which were frequently referenced in historical accounts reviewed...” (Maly and Maly 2012:4) and are pertinent for the Airport Section 3 corridor study. Following The SRI Foundation and Kumu Pono Associates LLC (2012:B-1) approach, the place names “identified as in or near the project area” are presented in shaded rows in Table 1 and Table 2 below. Note these place names may or may not constitute Traditional Cultural Properties, as described in National Register Bulletin 38 (Parker and King 1998). Nonetheless they provide cultural context for the results of the AIS.

The supplied listing includes (not including the *ahupua'a* names themselves) five names for Hālawā Ahupua'a (Kalo'iiki, Kalokoloa, Kapukakohekohe, Konohikilehulehu, Piomoewai) and twenty place names for Moanalua Ahupua'a (Āhua, Au'au, 'Auwaiomiki, Awaawaloo, Ka'ihikapu, Kai'iki, Kaloaloo, Ka'oki, Kauki (Keuki), Koko, Kukukahi, Kumuma'u, Lelepaua, Māpunapuna, Mokumoa, Mokuo'eō, Moku'onini, Pahunui, Pālani, and Weli). The place names are notably clumped. This is suggested to parallel, to be directly related to, and to support, the evidence of the distribution of Land Commission Awards and the distribution of *wahi pana* in indicating that the Airport Section 3 corridor was a relatively less utilized portion of these *ahupua'a* than lands seaward (*makai*), inland (*mauka*), or at the ends of the present study corridor.

The unique geography of the Airport Section 3 corridor places this study area in a rain shadow in the lee of the Makalapa, Āliamanu and Āliapa'akai post-erosional volcanic landforms of a second rain shadow in the lee of the Ko'olau Mountain Range. The same post-erosional volcanic landforms not only decrease rainfall, they also serve to divert surface runoff, as Hālawā Stream is effectively pushed far to the west and Moanalua Stream is pushed far to the east.

Thus it is no surprise that the recorded *Inoa 'Āina* are decidedly clumped around the two sources of surface water at the ends of the Airport Section 3 corridor.

### **Place Names in Hālawā Ahupua'a**

The five listed place names of particular importance for Hālawā in or near the project corridor fall in two clumps (see shaded rows in Table 1).

Three of the place names (Kalo'iiki, Konohikilehulehu, and Piomoewai) are located close together near a slight northern bend of the stream (Maly and Maly 2012:391). Kalo'iiki is the general name of a land section (*'ili*) on the south side of the bend (Figure 2). Konohikilehulehu is the name of a *mo'o'āina* (agricultural parcel) claimed by Opunui (LCA 2156:parcel 1) within this small land division on the south side of the bend. The home (*pāhale*) of Opunui

Table 1. Place Names Associated with Hālawa Ahupua'a (Adapted from The SRI Foundation and Kumu Pono Associates LLC 2012:B-1 to B-28. Place names identified as in or near the Airport Section 3 project area are shaded and an \* identifies indicated *wahi pana*)

<i>Inoa 'Āina</i>	<i>Ahupua'a and Description</i>	<i>Source</i>
Hālawa	<i>Ahupua'a</i> . "The broad flatlands extending 1.5 miles below the highway along Hālawa Stream are now under cane but were formerly terraces. The terraces also extended up the flats along the lower courses of Kamananui and Kamanaike Streams which join to form Hālawa, and I am told that there were small terraces farther up both streams. Four and 5 miles inland, dry taro was planted on the banks of gulches" (Handy 1940:80).	Maly and Maly 2012:8
Haluluhale	'Aiea-Hālawa boundary zone. An ancient burial cave with openings in both <i>ahupua'a</i> (1869, Boundary Commission proceedings).	Maly and Maly 2012:9
Iholena	'Aiea-Hālawa boundary zone. An area situated in the uplands, there were once houses and workshops of <i>olonā</i> and canoe makers here.	Maly and Maly 2012:11
Kahakupōhaku (Mole o Kahakupōhaku)	'Aiea- Hālawa boundary zone. A fishpond and large stone (Mole o Kahakupōhaku) in the wall between Kahakupōhaku and Kailōpā'ia fishponds; marking the boundary between these two <i>ahupua'a</i> .	Maly and Maly 2012:12
Kahalekaha	'Aiea-Hālawa boundary zone. An <i>ala pi'i</i> (trail to uplands) rises on the bluff, between the two <i>ahupua'a</i> at this place (1869, Boundary Commission proceedings).	Maly and Maly 2012:12
Kailōpā'ia	Hālawa. A fishpond boundary between Hālawa and 'Aiea.	Maly and Maly 2012:14
Kaleinaaka'uhane *	Moanalua-Hālawa boundary zone. This site situated on the inland side of Āliamanu, by Kapukakī and Leiolono is a leaping place for the spirits of the dead ( <i>leina a ka 'uhane</i> ). Some passed this leaping place, went on to the care of their ' <i>aumakua</i> , others, who had no one to help them, drifted down to Kaupe'a, Kama'oma'o, and Kānehili (the plains around Pu'u o Kapolei), where they would wander aimlessly in hope that someone would direct them to the spirit world.	Maly and Maly 2012:16

<i>Inoa 'Āina</i>	<i>Ahupua'a</i> and Description	Source
Kalo'iiki	Hālawā. A named locality. Cited in project area claims of the Māhele.  A reconstruction of awarded <i>kuleana</i> supplied by Klieger shows the place name Kalo'iiki as an ' <i>ili</i> ' name centered on the south bank of a northern bend of Hālawā Stream approximately 1 km east of the north end of the Airport Section 3 corridor.	Maly and Maly 2012:16  Klieger 1995:61
Kalokoloa	Hālawā. An ' <i>ili</i> '. Cited in claims of the Māhele.  A reconstruction of awarded <i>kuleana</i> supplied by Klieger shows the place name Kalokoloa as a fish pond (Pu'uone Kalokoloa) located on the north side of the mouth of Hālawā Stream within a 100 m or so of the north end of the Airport Section 3 corridor.	Maly and Maly 2012:16  Klieger 1995:61
Kamau	Hālawā. An ' <i>ili</i> '. Cited in claims of the Māhele.	Maly and Maly 2012:18
Kapua'ikāula	Hālawā. A coastal site where the bodies of sharks were tossed during a battle between the sharks of Pu'uloa and Keli'ikauaoka'ū. Kapua'ikāula is a canoe landing and marks the narrowest point in the channel between Hālawā and Pu'uloa, for the entry to Ke awa lau o Pu'uloa (Pearl Harbor). Cited in traditions and historical accounts.	Maly and Maly 2012:21
Kapukakī * (Keka'anī'auokapukakī)	Moanalua-Hālawā. A <i>wahi pana</i> boundary marker between the Kona and 'Ewa Districts; situated on the upland side of Āliamanu near an ancient burial ground. (see also Kaleinaaka'uhane and Leiolono)	Maly and Maly 2012:21
Kapukakohekohe (Kakohekohe)	'Aiea-Hālawā boundary zone. Kapukakohekohe is situated on the coastal flats. It was near here where Kalanimanu'ia (w.) died (1869, Boundary Commission proceedings).  A reconstruction of awarded <i>kuleana</i> supplied by Klieger (1995:61) shows the place name Kalokoloa as 250 m east of the mouth of Hālawā Stream.	Maly and Maly 2012:22  Klieger 1995:61
Kapūlehu	'Aiea-Hālawā boundary zone. An ancient house site in the uplands (1869, Boundary Commission proceedings).	Maly and Maly 2012:22

<i>Inoa 'Āina</i>	<i>Ahupua'a and Description</i>	<i>Source</i>
Kapu'ukapu *	'Aiea-Hālawā boundary zone. A lowland hill situated a short distance above Kapukakohekohe. The name, "The <i>kapu</i> hill" implies some sort of religious/ceremonial significance (1869, Boundary Commission proceedings).	Maly and Maly 2012:22
Keahuake'oa	'Aiea-Hālawā boundary zone. Referred to by elder native witnesses in the 1869 Boundary Commission proceedings as a "storied place": "... <i>hiki i kahi awawa i kapaia o Waipa mai laila a hiki i Keahuakeoa he wahi pana ia, he Ahua aa, holo mai a ke Awaawa o Kaawili mai laila a Nailiili a Malei...</i> " (...then reach the gulch called Waipa, and from there go to Keahuakeoa, a " <i>wahi pana</i> " (storied place), a stone mound, from there go to the gulch of Kaawili, and from there to Nailiili a Malei...).	Maly and Maly 2012:25
Keanapua'a	Hālawā. Site of a fishpond made by Kāne and Kanaloa. Also a famous cave on the coastal point, and resting place of the demigod, Kamapua'a. The cave was later used by fishermen as a shelter. Cited in the traditions of Kamapua'a and <i>Na Wahi Pana o Ewa</i> (1899).	Maly and Maly 2012:26
Komoawa (Kamoawa)	Hālawā. Named for a guardian shark who was the watchman or keeper of the gate into Ke Awalau o Pu'uloa. He lived in the cave called Ke'a'ali'i, and kept man-eating sharks out of the region. Also Identified as being the estuary channel leading into the eastern section of Ke awa lau o Pu'uloa. Now known as the "Hālawā Branch." Cited in <i>Saturday Press</i> , Dec. 29, 1883; and in <i>Na Wahi Pana o Ewa</i> (1899).	Maly and Maly 2012:28
Konohikilehulehu	Hālawā. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:28
Kumuma'u	Moanalua-Hālawā boundary zone. Situated on the former shore line, just above the place called Pālani. Cited in the tradition of Puhi o Laumeki. A named locality cited in project area claims of the Māhele.	Maly and Maly 2012:29
Kūnānā (Loko Kūnānā)	Hālawā. A fishpond and detached parcel on the Hālawā coastal flats.	Maly and Maly 2012:30

<i>Inoa 'Āina</i>	<i>Ahupua'a</i> and Description	Source
Maka'alaea	'Aiea-Hālawa boundary zone. A large stone on the shore, marking the boundary between these two <i>ahupua'a</i> (at the land of William Poomoku) (1869, Boundary Commission proceedings).	Maly and Maly 2012:32
Makalapa	Hālawa. An ancient crater perched above the Hālawa coastal flats.	Maly and Maly 2012:32
Nā'ili'ili	'Aiea-Hālawa boundary zone. An upland gulch where <i>olonā</i> was grown and made, and 'awa planted (1869, Boundary Commission proceedings).	Maly and Maly 2012:35
Nāpēhā *	Hālawa. The western end of Leiolono, and place where spirits of the dead would be encouraged to pass through by their <i>'aumākua</i> . The spring was named "Lean over" because King Kūali'i leaned over to drink water here ('Ī'ī, 1959). It is also reported that the spring was guarded by a <i>mo'o</i> (water spirit). Kamakau. <i>Nupepa Ke Au Okoa, Okatopa</i> 6, 1870.) A spring near the ancient trail between 'Ewa and Kona. Cited in <i>Na Wahi Pana o Ewa</i> (1899).	Maly and Maly 2012:35
Pāpua'a	'Aiea-Hālawa boundary zone. An ancient cultivating ground (1869, Boundary Commission proceedings).	Maly and Maly 2012:38
Piomoewai	Hālawa. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:38
Pōhaku'ume'ume	Hālawa-'Aiea boundary zone. A legendary stone marking the boundary (1874, Boundary Commission Proceedings).	Maly and Maly 2012:40
Pu'ua	'Aiea-Hālawa boundary zone. An ancient canoe maker's house and workshop ( <i>Kahuahale kālai wa'a</i> ).	Maly and Maly 2012:40
Wailolokai	Hālawa. A marshy area on the Hālawa coastal flats.	Maly and Maly 2012:44

\*indicates a *wahi pana* (see Figure 5 and Figure 7)

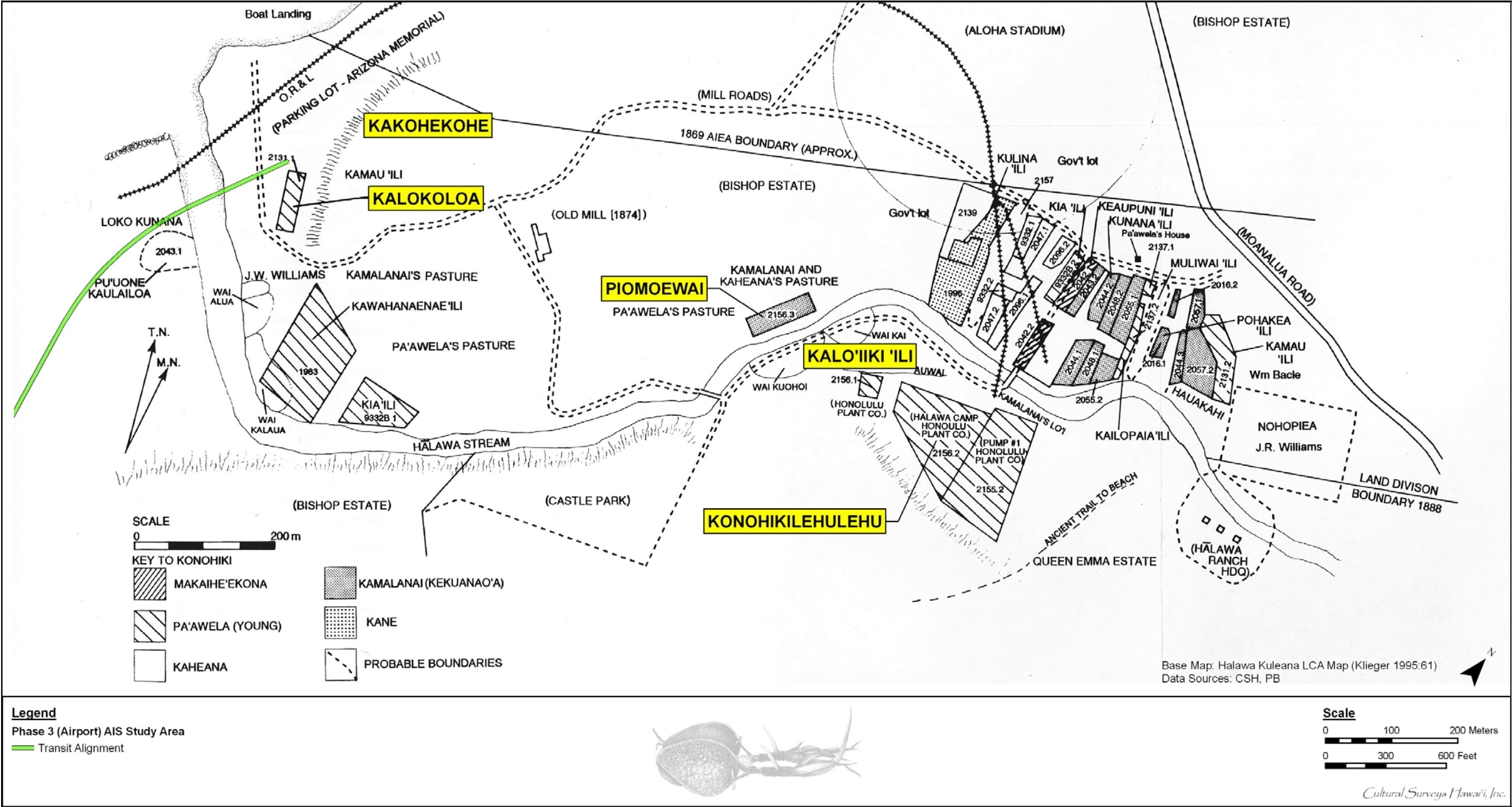


Figure 2. Overlay of the Airport Section 3 segment of the corridor (at upper left) on a reconstruction of the rich cultural landscape on the seaward side of Hālawā Stream (adapted from Klieger 1995:61); noted place names include: “Kalo’iiki ‘Ili” (at the north bend of Hālawā Stream, 1.0 km southeast of the north end of the corridor), “Kalokoloa” (southeast of the north end of the corridor), “Kakohekohe” (120 m northeast of the northern end of the corridor), “Konojikilehulehu” (the vicinity of Opunui’s LCA 2156:1) shown here as “Honolulu Plant Co.” within Kalo’iiki ‘Ili (1.0 km east of the north end of the corridor) and “Piomoewai” (the vicinity of Opunui’s pāhale or home LCA 2156:3) shown here as south of “Kamalanai and Kaheana’s Pasture” (700 m southeast of the north end of the corridor)

(LCA 2156:parcel 3) on the northwest side of the bend was in a field or pasture or small plain (*kula*) called Piomoewai. The closest of these three place names appears to be 700 m ESE of the northern end of the Airport Section 3 corridor. That general area approximately 700 to 1200 m upstream was clearly something of a quilt of homes and agricultural fields.

The other two specified Hālawā place names of particular import (Kalokoloa and Kapukakohekohe) are immediately east of the NW end of Airport Section 3 corridor. Kalokoloa was a fishpond and Kapukakohekohe (Kakohekohe) was a land area just to the northeast.

The main point in this discussion of the *Inoa ‘Āina* of Hālawā Ahupua‘a is that there are a great many associated with the seaward portion of Hālawā Stream where there was fresh water and where people lived and grew *kalo* in *lo‘i* and raised fish in *loko pu‘uone* (fish ponds). None of these indicated place names are more than 250 m from the stream. There appear to be no other *Inoa ‘Āina* indicated along the Airport Section 3 segment in Hālawā Ahupua‘a.

### Moanalua Place Names

Most of the twenty cited *Inoa ‘Āina* (in addition to “Moanalua”) indicated as being in or near the Airport Section 3 in Moanalua Ahupua‘a (Āhua, ‘Au‘au [*wahi pana*], ‘Auwaiomiki, Awaawaloa [*wahi pana*], Ka‘ihikapu, Kai‘iki, Kaloalua, Ka‘oki, Kauki [Keuki], Koko, Kukukahi, Kumuma‘u, Lelepaua, Māpunapuna, Mokumoa, Mokuo‘eō, Moku‘onini, Pahunui, Pālani, and Weli) are shaded in Table 2 and appear on the 1890 Monsarrat and Lyons map of Moanalua and Kahauiki (Figure 3) and/or on the 1920 Monsarrat map of Honolulu (Figure 4). The relationship of each of these place names to the Airport Section 3 corridor is described below.

**Āhua** is understood to be a fishpond and a low silty sandy spit formerly on the west entrance to Ke‘ehi Lagoon approximately 2.25 km south of the Honolulu International Airport Station (see Figure 3).

**‘Au‘au** is a *wahi pana* but not shown on any historic map to our knowledge. The posited location is shown on Figure 7.

**‘Auwaiomiki** is understood as a point associated with the demarcation of the boundary of Moanalua Ahupua‘a (Maly and Maly 2012:711) and of fishing rights (Maly and Maly 2012:513). The indicated location, called out between “Koko,” south of Āhua Point and “Palani” (a bunch of coral) “which is directly *makai* of Kumumau” suggests this point was off-shore two kilometers or more south of the central portion of the Airport Section 3 corridor.

**Awaawaloa** is a *wahi pana* that included a large fishpond 700 m north of the Lagoon Drive station (see Figure 7).

**Ka‘ihikapu** was a large fishpond 700 m south of the Honolulu International Airport Station (see Figure 3).

**Kai-iki (Kaikikapu)** was a medium sized fishpond 700 m NE of the Lagoon Drive Station (see Figure 4).

**Kaloalua** was a medium sized fishpond 250 m SW of the Lagoon Drive Station (see Figure 3).

**Ka'oki** is understood to be a point associated with the demarcation of fishing rights “near the island of Mokuonini” (Maly and Maly 2012:513) Moku'onini is 400 m east of the Lagoon Drive Station, but it is not shown on a map.

**Kauki (Keuki)** appears to be “Kaiiki” understood as a point associated with the demarcation of fishing rights in Ke'ehi Lagoon “outside of island of Mokuoeo” (Maly and Maly 2012:513). Moku'eō was a small island 2.4 m south of the Lagoon Drive Station. Neither Kauki nor Moku'eō is shown on a map.

**Koko** is understood to be a point associated with the demarcation of fishing rights in Ke'ehi Lagoon “south of Ahua Point” (Maly and Maly 2012:513), but it is not shown on a map. Āhua Point is understood as a low silty sandy spit formerly at the west entrance to Ke'ehi Lagoon approximately 2.25 km south of the Honolulu International Airport Station.

**Kukukahi** is understood to be a point associated with the demarcation of fishing rights in Ke'ehi Lagoon near Āhua Point (Maly and Maly 2012:513), but it is not shown on a map. Āhua Point is understood as a low silty sandy spit formerly at the west entrance to Ke'ehi Lagoon approximately 2.25 km south of the Honolulu International Airport Station.

**Kumuma** was a “Stone on wall of Loko Ahua marking boundary the between Moanalua and Hālawā” (Maly and Maly 2012:504 see also 511). The Ahua Pond was located 200 m NE of the Lagoon Drive Station (see Figure 3).

**Lelepaua** was a large fishpond 1.5 km SW of the Honolulu International Airport Station (see Figure 3).

**Māpunapuna** was a medium-sized fishpond 600 m north of the Lagoon Drive Station (see Figure 3 and Figure 4).

**Mokumoa** was a small island 1.1 km NE of the Lagoon Drive Station (see Figure 4).

**Moku'eō** was a small island 2.4 m south of the Lagoon Drive Station (see Figure 3).

**Moku'onini (Mokuoniki)** was a small island 400 m east of the Lagoon Drive Station (see Figure 4).

**Pahunui (Pahounui)** was a medium-sized fishpond 600 m SE of the east end of the Airport Section (see Figure 4).

**Pālani** was understood as a point associated with the demarcation of fishing rights “a bunch of coral which is directly south of, or *makai* of, Kumuma'u” (Maly and Maly 2012:513). Exact location is uncertain but as it is *makai* of Kumumau it would be more than two kilometers south of the study corridor.

**Weli** was a medium-sized fishpond 100 m north of the east end of the Airport Section (see Figure 4).

Table 2. Place Names Associated with Moanalua Ahupua'a (Adapted from The SRI Foundation and Kumu Pono Associates LLC 2012: B-1 to B-28. Place names identified as in or near the Airport Section project area are shaded and an \* identifies indicated *wahi pana*.)

<i>Inoa 'Āina</i>	<i>Ahupua'a and Description</i>	<i>Source</i>
Āhua	Moanalua-Kalihi boundary zone. A fishpond and coastal region. Cited in project area claims of the Māhele.	Maly and Maly 2012:5
Āliamanu	Moanalua. A noted <i>'ili</i> , geological feature and area of an ancient burial ground, near Leinaka'uhane and Kapukakī (on the inland side of the crater overlooking the ancient trail and government road).	Maly and Maly 2012:6
Āliapa'akai	Moanalua. A noted <i>'ili</i> , ancient crater, which once held a pond that rose and fell with the ocean's tides. Believed to have been a place visited by Pele on her migration across the Hawaiian Islands, as she looked for a home to keep her fires dry. Pele thrust her digging stick, Pā'oa, into the ground here, and her ocean-formed sister, Nāmakaokāha'i, dug in through the ocean causing a clash between fire and water. The residual salt crusted along the inner rim of the crater. And from that day forward, the lake rose and fell with the tides and salt makers worked the land here, harvesting <i>pa'akai</i> (salt) that was valued through the middle 1800s (the lake was filled in for development in the 1970s.)	Maly and Maly 2012:6
'Au'au *	Moanalua. A cave of refuge during times of war, near the shore of Moanalua. The cave entrance was on the shore, and was connected to the uplands of Moanalua via an underground cavern. The cavern was used a route of passage by the mo'ō goddess, Kaluahine when she desired to go fishing on the shore. (Mokumaia 1922 in Maly and Maly 2012:6).	Maly and Maly 2012:6
'Auwaiomiki	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:7
Awaawaloa (Awawaloa) *	Moanalua. A fishpond and land area. Cited in project area claims of the Māhele.	Maly and Maly 2012:7
Homahoma	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:9
Ho'ōlaiwi	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:10

<i>Inoa 'Āina</i>	<i>Ahupua'a</i> and Description	Source
ʻĪemi	Moanalua. A storied spring and <i>'ili</i> . Cited in claims of the Māhele (apparently transposed a “Umi” in some Māhele records). Cited in traditions by J. K. Mokumaia (1922).	Maly and Maly 2012:11
ʻĪna'ikōlea	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:11
Ka'aiulua	Moanalua. A land area. Cited in claims of the Māhele.	Maly and Maly 2012:11
Ka'auku'u	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:11
Kahaiao	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:12
Kahauiki (Hauiki)	Moanalua Boundary. A <i>'ili</i> and <i>kula</i> (flat land) along the Kalihi boundary of Moanalua. Cited in <i>mele</i> , traditions and claims of the Māhele. “Kahauiki Stream irrigated a moderate-sized area of terraces extending from the sea inland for about half a mile” (Handy 1940:79).	Maly and Maly 2012:13
Ka'ihikapu	Moanalua. A large fishpond salt making/collection site, reportedly built by Ka'ihikapu Manuia (Kalanimanu'ia) A named locality cited in project area claims of the Māhele.	Maly and Maly 2012:14
Kai-iki (Kaikikapu)	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:14
Kaleinaaka'uhane *	Moanalua-Hālawā boundary zone. This site situated on the inland side of Āliamanu, by Kapukakī and Leiolono is a leaping place for the spirits of the dead ( <i>leina a ka 'uhane</i> ). Some passed this leaping place, went on to the care of their <i>'aumakua</i> , others, who had no one to help them, drifted down to Kaupe'a, Kama'oma'o, and Kānehili (the plains around Pu'u o Kapolei), where they would wander aimlessly in hope that someone would direct them to the spirit world.	Maly and Maly 2012:16

<i>Inoa 'Āina</i>	<i>Ahupua'a</i> and Description	Source
Kaloalua	Moanalua. An <i>'ili</i> and large fishpond. Noted for the quality of <i>awa</i> ( <i>Chanos chanos</i> ) fish grown there. Cited in traditions and a named locality in project area claims of the Māhele.	Maly and Maly 2012:16 (citing <i>Ke Au Okoa</i> , <i>Iulai</i> 31, 1865)
Kalou	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:17
Kāne'ohe	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:19
Kaniu	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:19
Ka'oki	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:20
Kapukakī (Keka'anī'auokapukakī)	Moanalua-Hālawa. A <i>wahi pana</i> boundary marker between the Kona and 'Ewa Districts; situated on the upland side of Āliamanu near an ancient burial ground (see also Kaleinaaka'uhane and Leiolono).	Maly and Maly 2012:21
Kauki (Keuki)	Moanalua. A named locality. Cited in project area claims of the Māhele (boundary zone).	Maly and Maly 2012:23
Kauwālua (Kauālua) (written "Kanalua" in later texts)	Lapakea, Moanalua. Situated on the <i>mauka</i> side of the old trail to 'Ewa. Kauwālua was an ancient battle ground and favored traditional residence of chiefs of O'ahu. Following Kahahana's death, Kalai-koa, a Maui chief who served Kahekili, took up residence here. He had a house made with the bones of defeated O'ahu warriors and chiefs. The house was also enclosed by a fence of human bones with the skulls placed on top of the bundles of bones. (Kamakau 1867 and Kamakau 1961 in Maly and Maly 2012:24) (note: in several later published accounts, the first letter "u" in "Kauwālua" was transposed in typesetting to an "n").	Maly and Maly 2012:24

<i>Inoa 'Āina</i>	<i>Ahupua'a</i> and Description	Source
Kealalau	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:25
Kiao	Moanalua. An area associated with Leiolono and Kapukakī, noted for the <i>'ulalena</i> (reddish-yellow tinged rains).	Maly and Maly 2012:27
Koko	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:28
Kuai'awa	Moanalua. A land area. Cited in claims of the Māhele.	Maly and Maly 2012:28
Kū'aunui	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:28
Kukukahi	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:29
Kumuma'u	Moanalua-Hālawā boundary zone. Situated on the former shore line, just above the place called Pālani. Cited in the tradition of Puhi o Laumeki. A named locality cited in project area claims of the Māhele.	Maly and Maly 2012:29
Leiolono (Leilono/Leinono) *	Moanalua. Named for an ancient god, guardian of a deep pit filled with the bodies of dead people. Leiolono is situated on the inland side of Āliamanu. Here, spirits of the dead, those who did not have helpful <i>'aumākua</i> would be lost. Leiwalo was on the eastern boundary of Leiolono, and Kapapakōlea was the eastern boundary (see also Kaleinaaka'uhane and Kapukakī). From Kamakau 1870 in Maly and Maly 2012:31.	Maly and Maly 2012:31
Leiwalo ('Uluoleiwalo) *	Moanalua. Once spirits passed through Leiolono, they would find themselves on the <i>'ulu</i> (breadfruit) tree, Uluoleiwalo. If leaping from the wrong branch, the soul would be lost forever in the realm of Milu. If leaping from the correct branch, the spirit would find helpful <i>'aumākua</i> to guide them to the desired realm. Cited in S.M. Kamakau, <i>Nupepa Ke Au Okoa</i> , <i>Okatopa</i> 6, 1870; and the tradition of Makanike'oe.	Maly and Maly 2012:31

<i>Inoa 'Āina</i>	<i>Ahupua'a</i> and Description	Source
Lelepaua	Moanalua. A large fishpond and salt making area, built by Ka'ihikapu Manu'ia (Kalanimanu'ia). Cited in Boundary Commission proceedings. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:31
Mā'ili	Moanalua. An 'ili. Cited in claims of the Māhele.	Maly and Maly 2012:31
Manawainuikeo'o	Moanalua. An underground cave to the ocean that comes out at Āliapa'akai. Cited in the tradition of Makanike'oe.	Maly and Maly 2012:33
Māpunapuna	Moanalua. An 'ili land division and large fishpond extending to the shore of Moanalua. The pond of Māpunapuna was famed for its 'ama'ama (mullet) fish. Cited in traditions; and a named locality cited in project area claims of the Māhele.	Maly and Maly 2012:33
Moanalua *	<i>Ahupua'a</i> . "Inland of what is now Moanalua Park is a moderate-sized area of terraces. Mokumaia writes that Moanalua took its name from two taro patches watered by 'Īemi Spring: 'The name Moanalua came from two taro patches close to the road taken by travelers from Ewa. They were very close to the spring of Iemi. When the travelers came to the place just mentioned, they found the taro leaves so large that the keepers groped in the dark for taro for the chiefs. The taro and oha grew close together and that is how it [Moanalua] got its name which has remained famous to this day...' These terraces are now planted in wet taro by Chinese, and are irrigated with water from Kalou Stream, which empties into Moanalua Stream three quarters of a mile inland. The large area southwest of lower Moanalua Stream, which is now partly park and partly planted to bananas, was formerly all taro terraces. Most of this area to seaward is still planted in flourishing taro grown by Chinese. There are also extensive irrigated patches east of the lower course of the stream which presumably used to be taro beds but are now partly planted in rice and partly unused" (Handy 1940:80).	Maly and Maly 2012:33-34
Mokumoa	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:34

<i>Inoa 'Āina</i>	<i>Ahupua'a</i> and Description	Source
Moku'eō	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:34
Moku'onini	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:34
Niuho'okahi	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:36
Pahunui	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:37
Pālani	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:37
Pililua	Moanalua. A cave in which King Kahahana, his wife Kekuapo'i, and Alapa'i hid for a time, following the conquest of O'ahu by the forces of Kahekili. Cited in the account of Makanike'oe.	Maly and Maly 2012:38
Pōhāhā	Moanalua. An <i>'ili</i> . Cited in claims of the Māhele.	Maly and Maly 2012:39
Waiola	Moanalua. A pond at the place in Moanalua Valley where the two streams join together. The water of this pond was noted for its healing qualities. Cited in historical accounts.	Maly and Maly 2012:44
Weli	Moanalua. A named locality. Cited in project area claims of the Māhele.	Maly and Maly 2012:45

\*indicates a *wahi pana* (see Figure 5 and Figure 7)

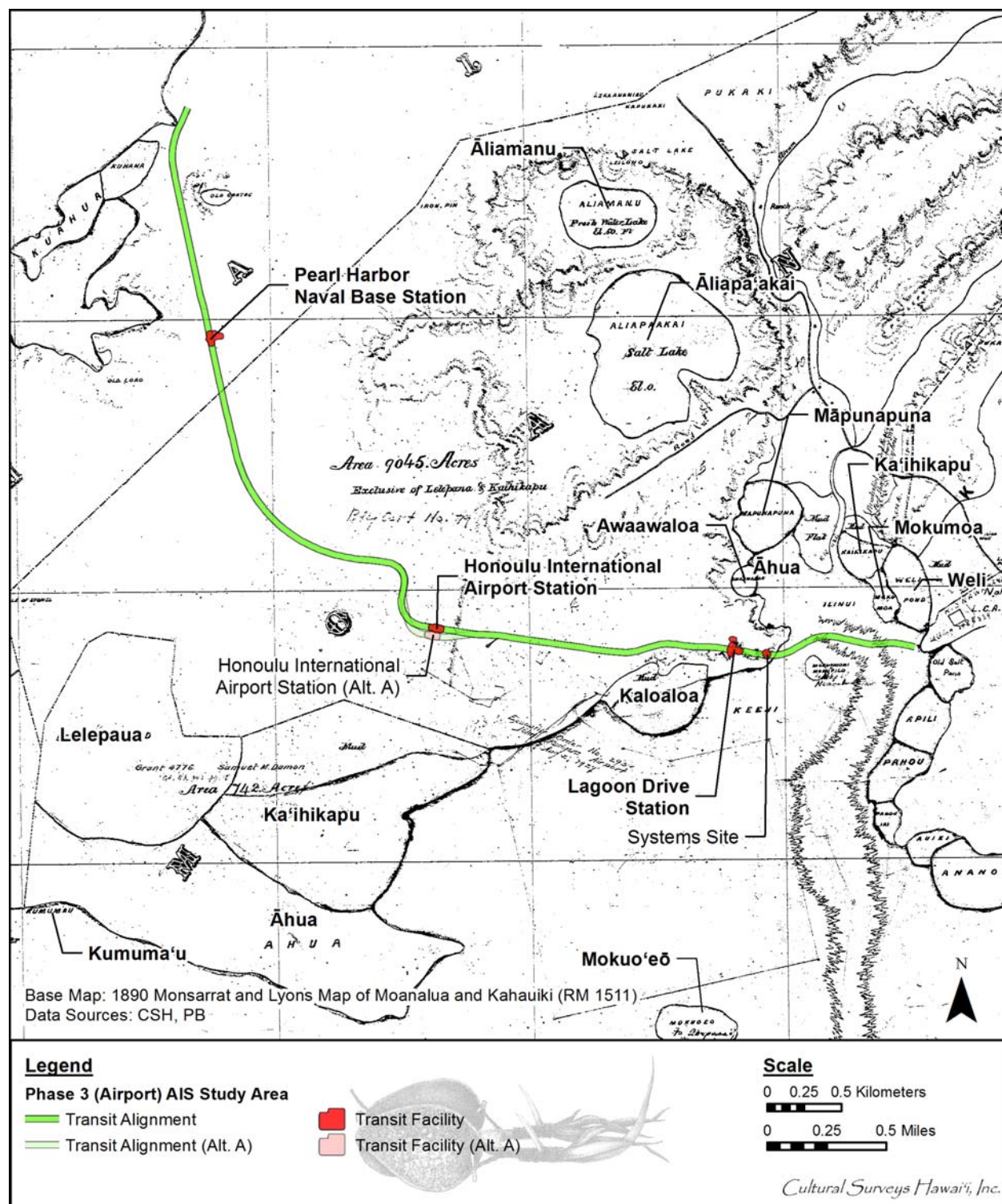


Figure 3. 1890 Monsarrat and Lyons map of Moanalua and Kahauiki showing geographic relationship of Airport Section 3 corridor to various *Inoa 'Āina* in Moanalua and Kahauiki Ahupua'a

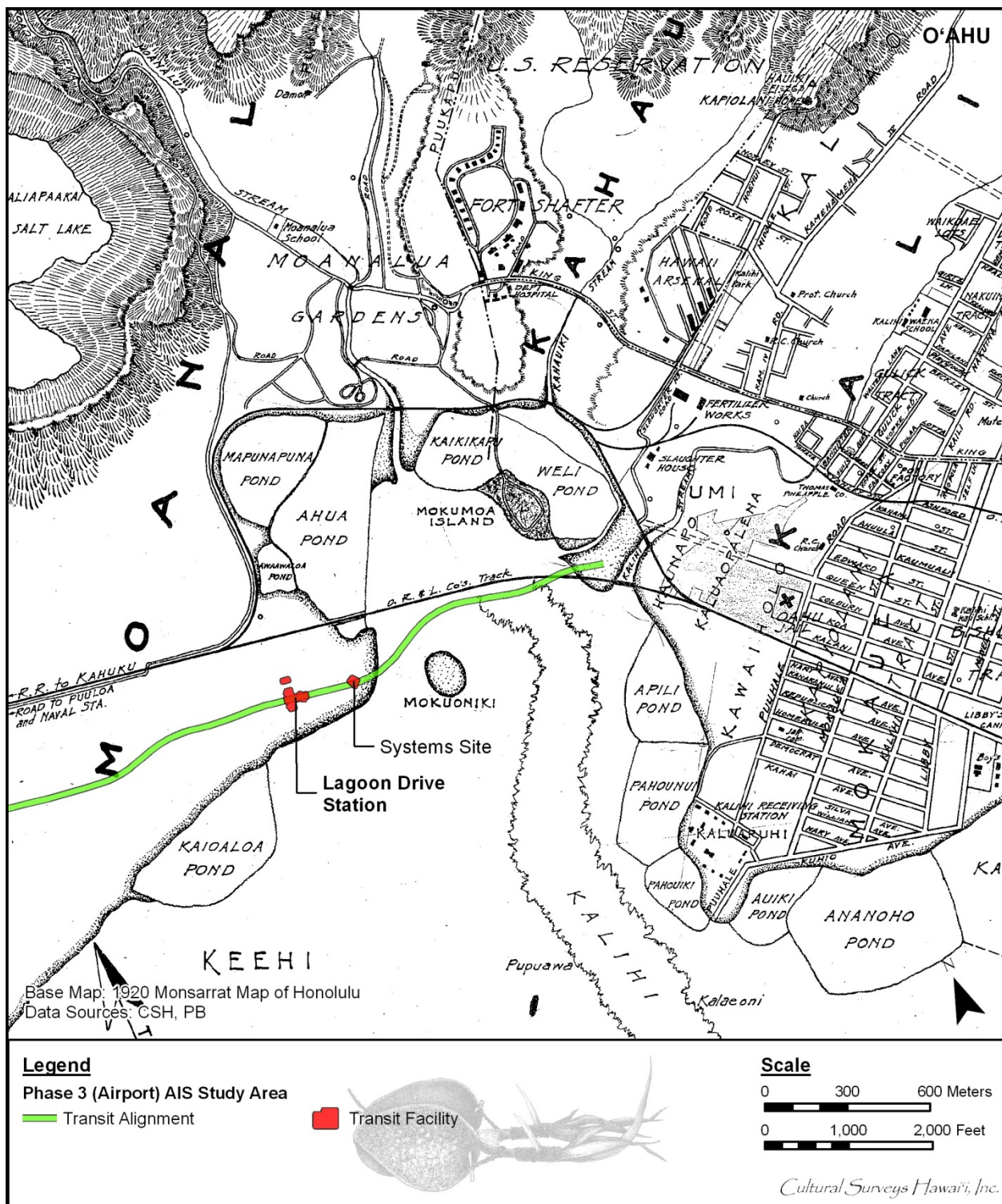


Figure 4. 1920 Monsarrat map of Honolulu showing geographic relationship of Airport Section 3 corridor to various *Inoa 'Āina* in Honolulu District

The main point in this discussion of the *Inoa 'Āina* of Moanalua Ahupua'a is that there are a great many associated with the seaward portion of the confluences of Moanalua Stream, Kahauiki Stream, and Kalihi Stream where there was fresh water and where people lived and raised fish in fish ponds and exercised fishing rights in the lagoon. Of these eighteen place names, only Lelepaua Pond (1.5 km SW of the alignment and inland of Ke'ehi Lagoon) is not located on the immediate margin of Ke'ehi Lagoon or off-shore far to the south.

Clearly the well-watered lands of Moanalua, Kahauiki, and Kalihi and the virtual ring of fishponds surrounding Ke'ehi Lagoon must have supported a large population may well have been a foci of early settlement. Kaloalua Fishpond was probably less than 200 m to the south of the Airport section just west of the Lagoon Station. Most of the rest of the *Inoa 'Āina* of Moanalua Ahupua'a were at some distance away.

The confluence of Moanalua and Kalihi Stream must have been an attractive area in pre-Contact Hawai'i. The reverend Hiram Bingham noted the *muliwai* (backwater estuaries) of Moanalua and Kalihi (Maly and Maly 2012:168). The extensive fishponds are understood to have been the property of the *ali'i* of long-standing (Maly and Maly 2012:171), and the extent to which the *maka'āinana* as a whole profited from these fishponds remains a matter of some debate. Most of this cultural landscape was buried under thick fill beginning in 1942 and 1943.

## ***Wahi Pana* (Storied Places)**

The *ahupua'a* of Hālawā and particularly Moanalua Ahupua'a are rich with traditional associations and rich with *wahi pana* or "storied places." Their posited location in reference to the present Airport Section 3 transit study corridor are shown in Figure 5, Figure 6, and Figure 7. The reader is referred directly to the Maly and Maly (2012) study for detail on the abiding relationship between Hawaiians and the *'āina*; only an overview focused specifically on the Airport Section 3 corridor is presented here.

The SRI Foundation and Kumu Pono Associates LLC (2012) study posits 26 individual *wahi pana* in or near the first three construction phases of the project area ('Au'au, Hā'ena Heiau [Ahu'ena], Hālaulani, Hā'upu [Haupu'u], Huewaipī, Ka'aimalu, Kahō'ai'ai, Kaihuopapua'a, Kaluaiwi [Kaluiwi], Kalua'ōlohe, Kanukumanu [Kanukuokamanu], Ka'oinaomaka'ioulu, Kapukanawaiokahuku, Kauhiahau, Kawaili'ulā [Waili'ulā], Keonekuilimalaulā'ewa, Kuka'eki, Kūki'iahu [Kūki'i], Nāpōhakuloloa, Nāpōhakuluahine, Nā'ulaamaihea [also written Nauluamaihea], Piliamo'o, Piliaumoa, Po'ohilo, Punahinalo [Punanalo], and Waipāhū). One of the 26 *wahi pana* cited lies within Moanalua Ahupua'a and none lie within Hālawā Ahupua'a. The one *wahi pana* within Moanalua is named "'Au'au" and is described as follows:

A cave of refuge during times of war, near the shore of Moanalua. The cave entrance was on the shore, and was connected to the uplands of Moanalua via an underground cavern. The cavern was used [as] a route of passage by the mo'o goddess Kaluahine when she desired to go fishing on the shore. Cited in traditions of Moanalua by J. K. Mokumaia (1922). (The SRI Foundation and Kumu Pono Associates LLC 2012:43)

The posited location of the 'Au'au cave of refuge (numbered "42") is shown on Figure 7 as possibly extending to as close as 100 m north (*mauka*) of the Transit corridor approximately 500 m ENE of the Lagoon Drive Station.

Such fabulous caverns with underground trails are a common theme in Hawaiian legends. Maly and Maly (2012:100) cite several accounts from the Hawaiian language newspaper *Nupepa Ka Oiaio* from January 5, 1894 through May 10, 1895 by Moses (Mose) Manu of the travels of a certain Mekanike'oe having landed at Kalihi "outside of Keahua, at the place called Keawakalai."

"There he saw a crevasse open in the sea... Mekanikeoe crawled along one of the crevasses in the sea, and going beneath the land, he exited out at Aliapaakai." While this cave is not called "'Au'au," it is notably entered by swimming which has a certain resonance (*'Au'au* meaning "to bathe"; *'Au* meaning "To swim, to travel by sea"). The fact that the natural "Kalihi Channel" (see Figure 3 and Figure 4) angles towards the salt lake of Āliapa'akai would certainly suggest such a connection as a subterranean passage.

Maly and Maly (2012:197) cite another series of accounts from the Hawaiian language newspaper *Kuokoa* by J. Kulia Mokumaia from February 17 through June 29, 1922. The core account supporting the *'Au'au wahi pana* is given below:

It was said that an old woman lived by the stream close to the hill. In the middle of the hill was a cave in which she lived. Sometimes she was said to assume the form of a lizard for she was a supernatural being. When the people who lived on Kamanaiki (that is the gulch with the Wai-a-puka pools) came down and passed the old woman's home, she asked, "Are you going to the beach?" They said, "Yes. We are going to gather sea weeds, and some, squid. While we were in the uplands we had a desire for sea foods and this is the reason for this big company of people." "Yes, I see that you are a big company."

This woman was not a mischief maker but used her mana, so the natives said. As the big company went down, she sat on a long stone in the middle of the stream. She sat there until the last of the company passed and then moved back and vanished out of sight. She came out down below at Auau. The place was said to be a cave used in war times. This spot is where the train comes to from Kuwili to the sea channel of Moanalua. The train reaches that side of the land and goes on to Puuloa. The point that juts out just there has a cave. The old woman came out there and sat above it. She sent her eyes to go and catch her some fish and she sat there totally blind. No one thought that her eyes had caught her any fish for when the company returned, she was already at home scaling fish. Some of the people wondered at this and talked it over among themselves. This occurred whenever she wanted fish. She went down the short cut. That was the most wonderful thing. Another strange thing was that this old woman did was to change herself into a lizard. She assumed many other forms and the best of all was that she did not harm anyone. The place where she lived was on the path taken by the people of Ewa when they ascended. The bone fence of the bad chiefs of the valley of Kamanaiki was also near. (*Kuokoa* 1922, trans. by Pukui 1978, as quoted in Maly and Maly 2012:197)

A fairly clear geographic reference is given to the point on the west side of Ke'ehi Lagoon just to the south of where the OR&L causeway reached the land of Moanalua (see Figure 4).

It may be also noted that both Hālawā and Moanalua were famous for their traditional Hawaiian fishponds lying both to the south/*makai* and to the north/*mauka* of the Airport Section 3 portion of the transit corridor. Fishponds are often considered to be *wahi pana* in and of

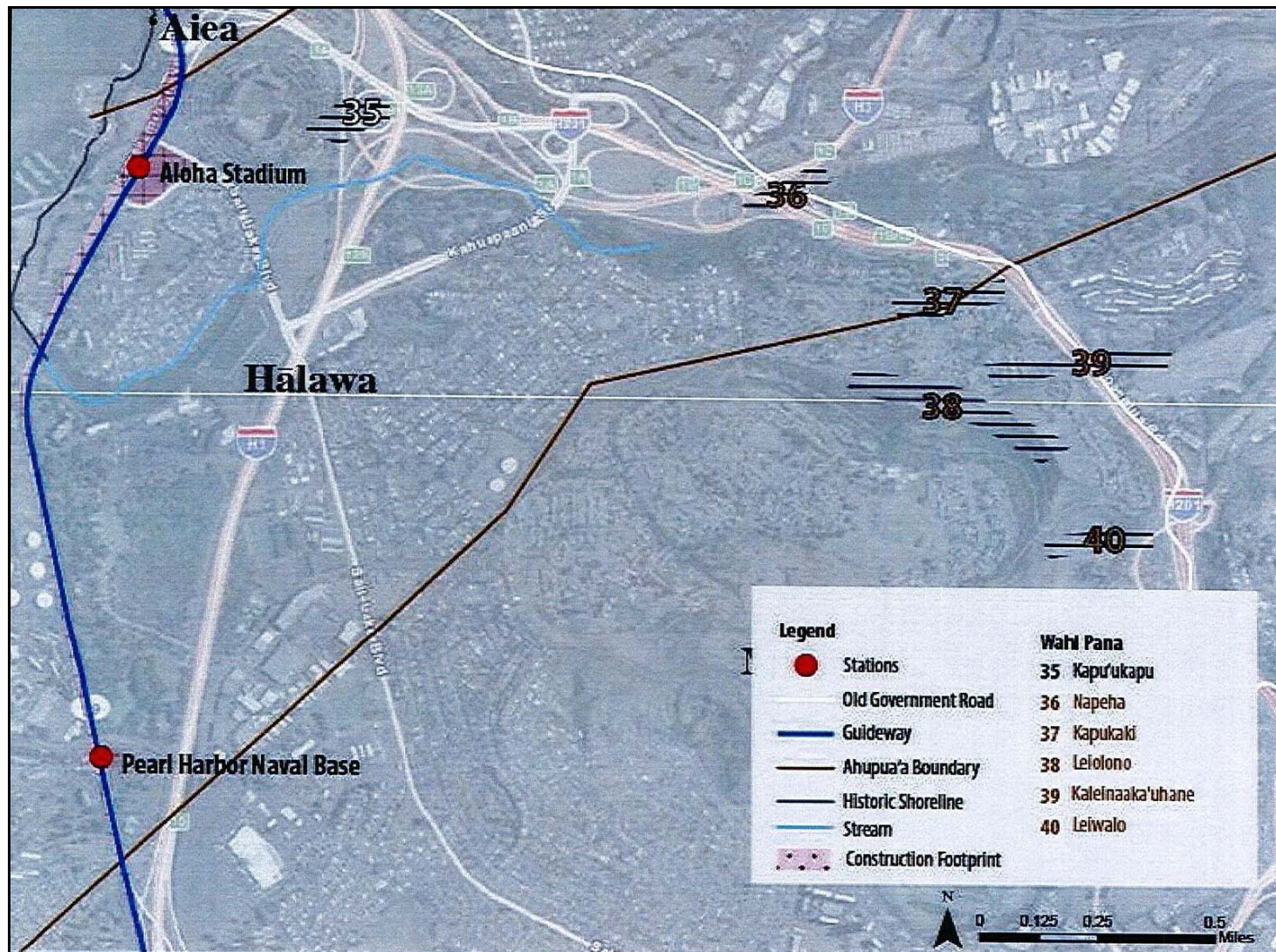


Figure 5. *Wahi Pana* of Hālawā Ahupua'a and western Moanalua Ahupua'a (as reported by The SRI Foundation and Kumu Pono LLC 2012:E-9)

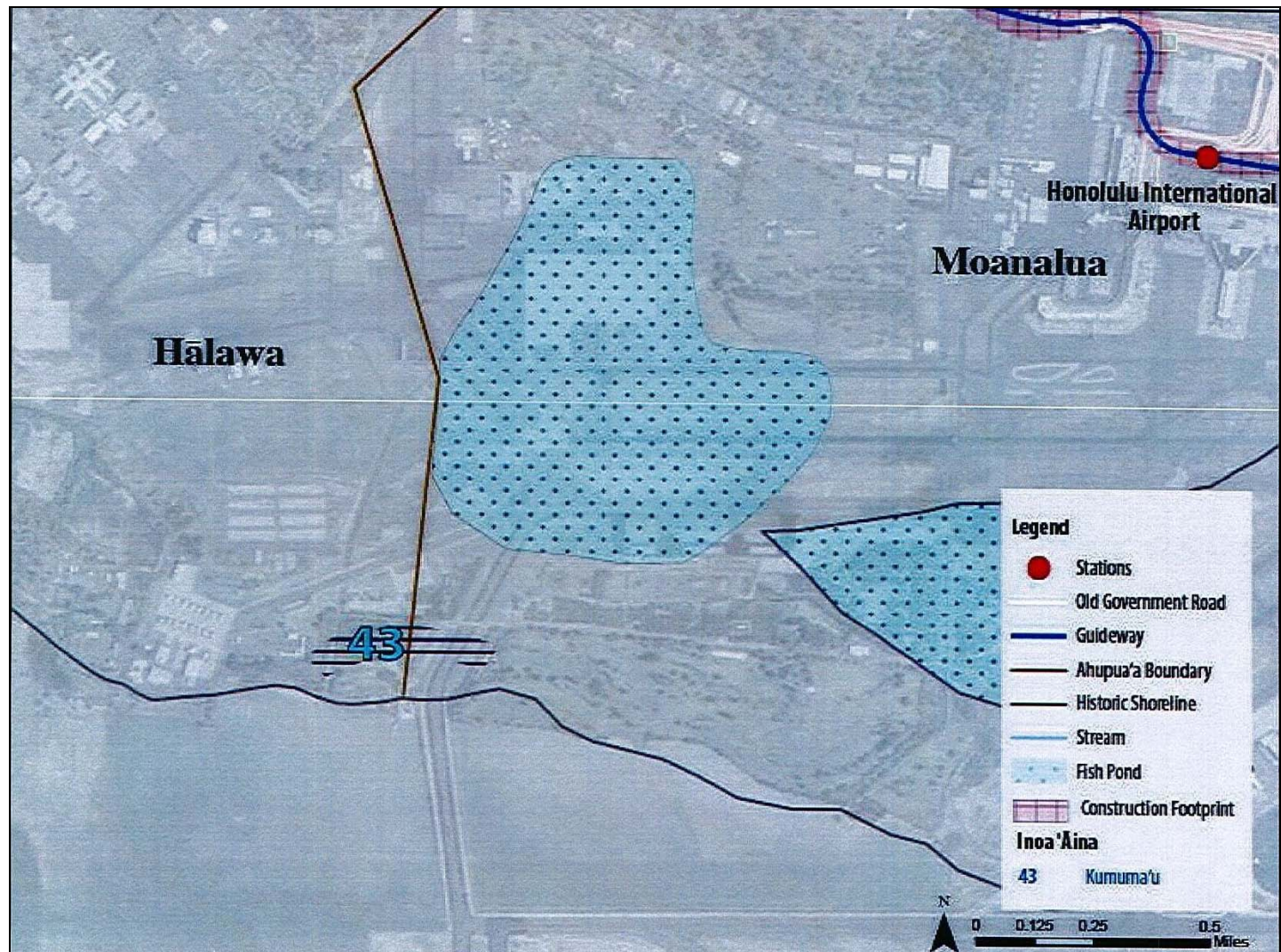


Figure 6. *Inoa 'Āina* of coastal, eastern Hālawā Ahupua'a and coastal western Moanalua Ahupua'a (as reported by The SRI Foundation and Kumu Pono LLC 2012:E-10)

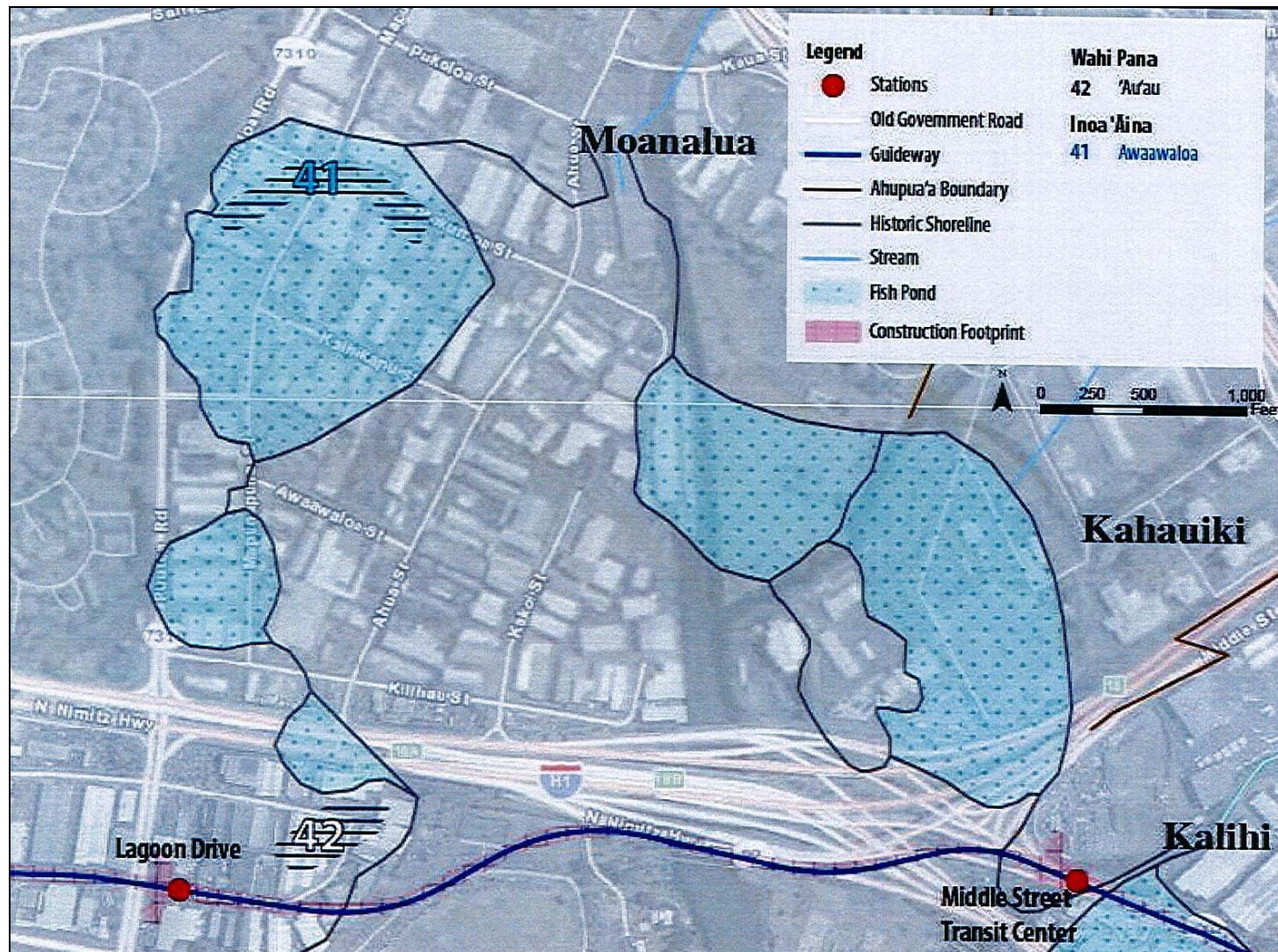


Figure 7. *Inoa 'Āina* and *Wahi Pana* of coastal western Moanalua Ahupua'a and southern Kahauiki Ahupua'a (as reported by The SRI Foundation and Kumu Pono LLC 2012:E-10)

themselves or because they are often associated with stories. The Airport Section 3 corridor does not cross any fishponds.

### **Study 3: Allen et al. (2005)**

Under contract with the Department of the Navy, the International Archaeological Research Institute Inc. (IARII) produced a study titled *A Study of Native Hawaiian Traditional Cultural Places, Hickam Air Force Base, Hālawā and Moanalua Ahupua‘a, ‘Ewa and Kona Districts, O‘ahu Hawai‘i*. The study examined 25 places in seaward Hālawā and Moanalua Ahupua‘a “that appeared likely at the outset of the project to qualify as TCPs [Traditional Cultural Properties].” Figure 8 shows the locations of known Hawaiian Traditional Cultural Places at the former Hickam Air Force Base. Fourteen of the 25 places were assessed as being potential Traditional Cultural Properties based on National Register of Historic Places (NRHP) criteria A-D (Table 3). It is notable that all 14 potential TCPs are located near the coast (see Figure 8) and none are within 2.5 km of the Airport Section 3 corridor.

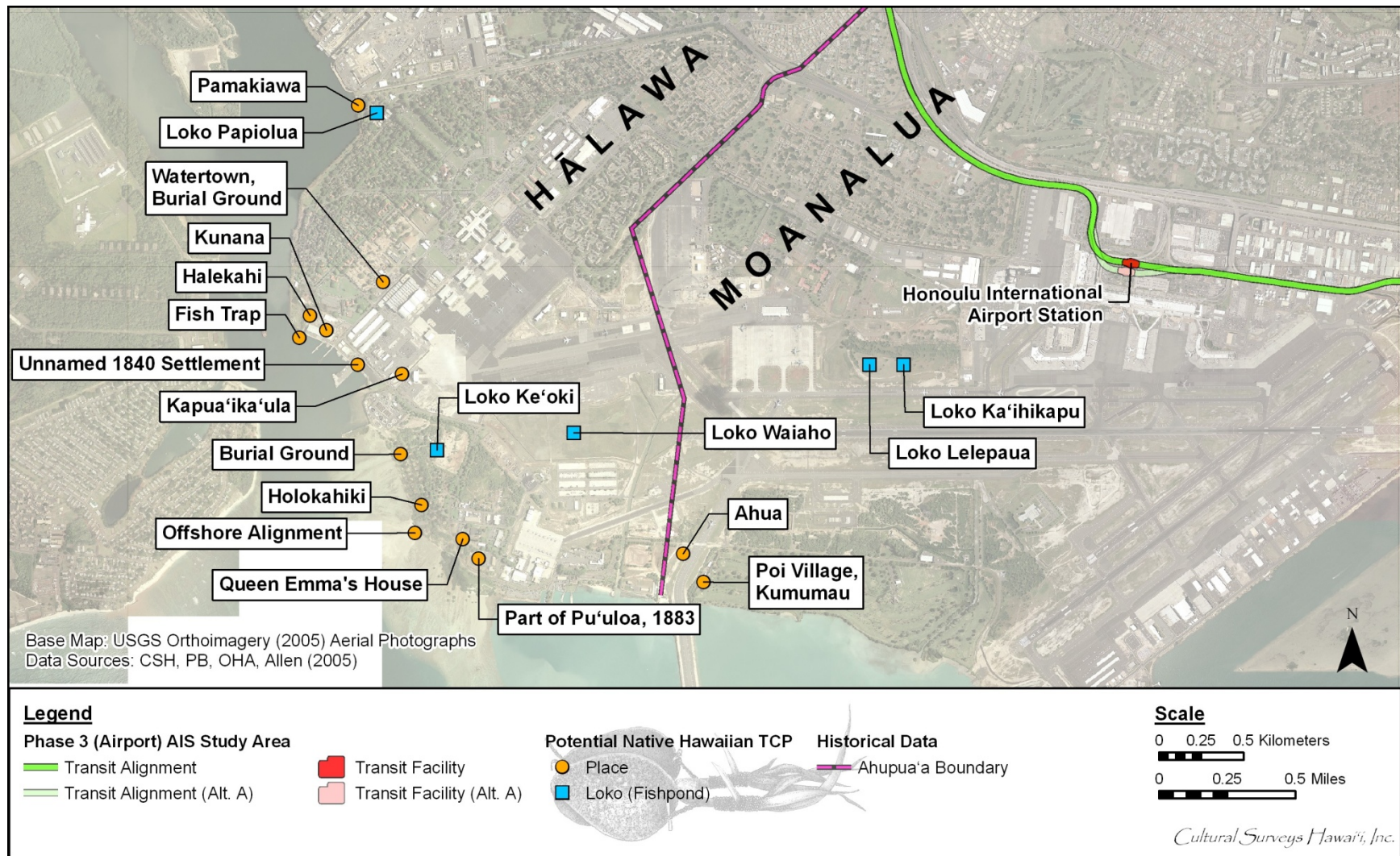


Figure 8. Airport Section 3 corridor in relation to known Hawaiian Traditional Cultural Places at the former Hickam Air Force Base (now part of Joint Base Pearl Harbor Hickam) (adapted from Allen 2005:99)

Table 3. Potential TCPs within the Former Hickam Air Force Base (now part of Joint Base Pearl Harbor Hickam) (adapted from Allen 2005:89-90, Table 6)

Place	Location in (In), Partially in (Part), or Offshore (Offsh) by Hickam AFB	Ahupua'a	NRHP Criterion(-a)				Notes for Criteria A-C (Justification, Associations)	Physical Condition
			A (Events)	B (Famous People)	C (Art, Period, Style)	D (Information)		
Burial ground at Fort Kamehameha (possible village in area)	In	Hālawā				x		portions preserved
Entrance to Pu'uloa Lagoon (Pearl Harbor); see Pu'uloa, below, for land divisions	Offsh (also offshore from Honolulu)	Hālawā		x		x		possibly intact
Fishponds, generally	Part	Hālawā and Moanalua	x			x		most filled
Hālawā Halawa ( <i>ahupua'a</i> )	Part	Hālawā		x		x		various; most Hickam AFB portions developed
Hickam AFB as <i>kapu</i> Crown lands	In	Hālawā and Moanalua		x		x		most portions developed
Kapua'ika'ula Kapua'iki'ula Kapuaikaula (battlefield, settlement)	In	Hālawā		x		x	place where Kahahana had Ka'opulupulu killed	developed
Loko Waiāho, also "Queen Emma's Pond" Wai a aha	In	Hālawā		x		x	Queen Emma	filled
Pāmakiawa Pamakiawa Pa Makiawa (fish trap)	In	Hālawā		x		x	Kāne, Kanaloa	reportedly destroyed; area developed

Place	Location in (In), Partially in (Part), or Offshore (Offsh) by Hickam AFB	Ahupua'a	NRHP Criterion(-a)				Notes for Criteria A-C (Justification, Associations)	Physical Condition
			A (Events)	B (Famous People)	C (Art, Period, Style)	D (Information)		
Pu'uloa region Puuloa; see Entrance, above, for lagoon	Part	Hālawā and Moanalua	x	x		x	settlements; association with goddesses, <i>mo'o</i> , shark deities; battleground where Kahekili conquered Kahahana	various, most areas developed
Queen Emma's house (structure)	In	Hālawā		x		x	Queen Emma	destroyed
Watertown (settlement)	In	Hālawā	x			x	development of Pearl Harbor	buildings destroyed; roads in use

## Study 4: Ka'imipono Consulting Services (2008)

Under contract to the City and County of Honolulu, Ka'imipono Consulting Services (2008) carried out a Cultural Resources Study identifying cultural resources, practices, and beliefs that may be affected by the HHCTTC Project. One historic resource was also identified.

One aspect of this study was to produce a summary of cultural resources and practices "within the 500-foot APE around the proposed stations." These resources and practices identified near the Airport Section 3 corridor are summarized by *ahupua'a* below.

Table 4. Summary of Cultural Resources and Practices Identified Near Airport Section 3 Corridor (adapted from Ka'imipono Consulting Services 2008:4-37 and 4-38)

<i>Ahupua'a</i>	Resource	Type
Hālawā	Hālawā Stream	Resource (water)
Hālawā	Pearl Harbor Kai Elementary School	Practice
Hālawā	Richardson Park and Pool	Practice
Hālawā	Arizona Memorial Access & Bowfin Museum	Resource (historic)
Hālawā	Cincpac Command Headquarters	Practice
Moanalua	Holy Family Catholic Academy	Practice
Moanalua	Ke'ehi Lagoon Park	Practice
Moanalua	Disabled American Veterans' Hall	Practice
Moanalua	Ke'ehi Lagoon Park Canoe Facility	Practice
Moanalua	Assets School	Practice
Moanalua	Nimitz Elementary School	Practice
Moanalua	Pearl Harbor Elementary School	Practice

Of the twelve cultural resources and practices identified near Airport Section 3 (see Table 4), it appears that only Hālawā Stream and the Ke'ehi Lagoon Park/ Ke'ehi Lagoon Park Canoe Facility relate directly to locales of traditional Hawaiian cultural landscapes. The present archaeological inventory survey documented that both of these areas have been massively transformed by twentieth century fill activities and yielded minimal information regarding cultural practices.

Another component of the Ka'imipono Consulting Services (2008) study was an oral history project. Of the oral histories recorded, one interview was substantively relevant to the Airport Section 3 corridor. Specifically, an interview with Mr. Shad Kane provided details regarding the cultural traditions associated with Leilono at Āliamanu at Moanalua. While certainly *wahi pana* in the Hawaiian past, this area is understood as about 2.8 km east of the Airport Section 3 corridor (see Figure 5) and will not be affected by the transit project.

Mr. Kane also discussed the seaward portion of the boundary between Hālawā Ahupua'a of 'Ewa District and Moanalua Ahupua'a of Kona District. His account is given below:

...After much research it was learned that the moku boundary between 'Ewa and Kona (Honolulu) has changed several times. Today the moku boundary parallels the fence line dividing Pearl Harbor Naval Shipyard from Hickam Air Force Base. However upon further investigation it was learned that anciently the actual boundary was 1 mile east of the fence separating the bases. It allowed both 'Ewa and Kona to share in the inland fish

ponds of Lelepaua and Ka'ihikapu which were built by Ka'ihikapu-a-Manuia who was the son of Kalaimanuia and the father of Kakuhihewa. Those fishponds which were 332 and 258 acres respectively now lie beneath the tarmac of both Hickam AFB and the Honolulu International Airport. The auwai are still there today and exit Mamala Bay and Keehi Lagoon. You can still see them today on your occasional flights off island. Kapua'ikaula is Hickam Air Force Base. The ancient moku boundary between 'Ewa and Kona used Kapua'ikaula as a description of that division. Today the center of Kapua'ikaula would be in the approximate location of Hickam Harbor Beach adjacent to the reef runway. Is it any wonder why there is a street name of Pu'uloa in Mapunapuna?

[Re: current cultural practices] Since 2002 the O'ahu Council of Hawaiian Civic Clubs and the 15th Airbase Wing Commander of Hickam Air Force Base has been sponsoring an annual Makahiki at Kapua'ikaula. The Makahiki is an ancient, annual festival that was dedicated to Lono, the deified guardian of agriculture, rain, health and peace. For over two thousand years, the significance of Lono and his contributions to the beliefs and practices of the early Hawaiian people, influenced the celebration of events held during the Makahiki Festival throughout the Hawaiian Islands. According to the ancient lunar calendar of Hawai'i, the beginning of the Hawaiian new year began on the first night of the rising of the star constellation Makali'i (Pleiades). The four months following the rise of the Makali'i (from October to the end of January) was set aside as a time for Lono to give thanksgiving for the bounty of the land and sea. Since Lono was the embodiment of all the characteristics of peace and welfare, all warfare was strictly forbidden during the time of the Makahiki. Since Lono represented the spiritual life-force that came out of all agricultural efforts, much feasting of every kind was done during the four months of the Makahiki. This focus on health and welfare made games of skill that tested a healthy body and mind which is a focal point of the Makahiki games. It was here at Kapua'ikaula, some 250 years and earlier where the Makahiki Festival was celebrated. Other places in 'Ewa where the Makahiki games were played were Puuokapolei, Waikele, Waipio and Puuloa. (Ka'imipono Consulting Services 2008: F-31)

Mr. Kane's account draws attention to the Hālawa/Moanalua Ahupua'a (which is also the 'Ewa/Kona *moku* or district) boundary as a focus of traditional Hawaiian activity. This merited another look at the survey results (T-012) and the historic record in the vicinity of the posited boundary but no clear evidence was found of any cultural practices in that portion of the posited *ahupua'a* boundary traversed by the Airport Section 3 corridor.

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